

GROWING PAINS



Newsletter for the MiraCosta Horticulture Club of Oceanside

February 2018

Club meeting on Saturday, February 3rd at 12:30 p.m., MiraCosta College, 1 Barnard Dr., Oceanside, CA 92056

Club meets at Student Center, Bldg 3400, Azatlan Rooms A and B on 2nd floor above book store.

Web-site: www.mchclub.org

President: Tandy Pfost 760-231-1248

e-mail: tandy.denny@gmail.com

Editor: Kim Cyr 760-598-3368

e-mail: ritz4petz@roadrunner.com

Announcements

The March 3 meeting will be held in room T430.

We had a meeting there one time before.

Pie Day is February 3. Bring a pie and share in this fun time!

The next Board meeting is February 1.

The plant sale is May 18-20.

Workshop: Shell Decorated Birdhouses

Host: Wendy Butler

Wendy is a friend of Carol Fehner and she will demonstrate how to turn an ordinary birdhouse into personalized shell works of art.

Program: Mary Matava is the President-Agronomist, Agri Service and the operator of the City of Oceanside's El Corazon compost facility which processes over 60,000 tons per year of yard trimmings, food discards and wood waste into high-quality compost and mulch. She has developed and built facilities in Los Angeles and Riverside counties and recently opened a new facility in Otay Mesa. Her presentation will be "Improving San Diego Fertility".

President's Message for February 2018

Recently, I ran across a couple articles about soil microbes. One is from NPR, and the other from UC Davis. Although microbes are vital in growing food and sustaining the planet, they do this anonymously. A tablespoon of soil contains billions of microscopic organisms, and scientists do not have names or descriptions for most of them. Noah Fierer at the University of Colorado, Boulder is leading research to bring them out of obscurity.

Besides helping plants grow by creating fertile soils, they release carbon dioxide, oxygen and other vital elements. Fierer says most of the species have not been identified, nor how they are surviving or what they are doing in the soil. Why is all this so difficult you ask? Because they cannot be studied in the lab. Scientists cannot see inside of their "black box" because the microbes refuse to grow in anything but dirt.

Fierer and other scientists figured out how to collect samples of soil and extract the DNA contained in the sample from all the organisms living there. This is a big deal because "thousands of bacterial species can be found in a given teaspoon of soil," Fierer says. "They study the DNA in each sample. They look specifically at a particular region of DNA that is common to all living organisms. And by making a catalog of all the different versions of that

HAPPY VALENTINE'S DAY 

region, they can tell how many different kinds of microbes live in that sample". They can also tell how common each type of microbe is.

What they are discovering is that there is a relatively small group that seems to dominate. These show up in large numbers in soil samples grassy lands, forests and deserts. Fierer made a list of 500 bacteria that account for almost half of all the soil bacteria. Going forward, research will focus on the "Most Wanted List" After this point, it is like the sky is the limit in where research can go.

The UC Davis article is "The Secret Life of Soil" March 3, 2017 – Lisa Howard. Lisa spent time with Kate Scow, a professor of soil science and soil microbial ecology at UC Davis. Scow is director of the university's 300 acre research facility studying long-term impacts of management practices and climate on agricultural sustainability. Microbial ecology is one of Scow's primary research areas. She wants to learn how to refocus agricultural practices below-ground and enhance the activity of beneficial microorganisms.

She shows samples of soil that were tilled when wet after the rains last year. The soil structure was completely broken down due to tilling when wet. Scow wants to find out how sensitive the bacteria and fungi are to tillage and cover crops. Additionally, what the impacts are of mineral fertilizer on managed and non-managed agricultural systems. Soil structure has everything to do with how well soil retains water and nutrients, how much oxygen gets to plant roots, etc. Microbes are the architects that build that structure. Therefore, how farm land is managed can determine whether we help or hinder these microscopic structural engineers. Scow explains that there are nitrifying microbes that convert ammonium to nitrite, and then to nitrate. There are microbes that metabolize pesticides, pollutants and fertilizer. But how important is teamwork among these different organisms in providing these services?

Fierer and Scow are consistent in their opinions that microbes in soil are essential for life and scientists know relatively little about them except that they are plentiful and diverse.

Tandy

Growing Bareroot Fruit Trees

Grangetto's

Now is the time to buy bare root fruit trees for gardeners who have learned the glories of picking

fresh fruit from their own orchards. Your first look at the bare root fruit tree that you envision bearing baskets of fresh sweet fruit may be a bit of a disappointment; it won't win a beauty contest. But there is a bonus to buying bareroot. As those smart gardeners know, you get great fruit trees at a price considerably less than a containerized tree.

Unlike evergreen trees, deciduous trees go through a dormant phase during which they lose all their leaves. Whether you're choosing plum, nectarine, pear, peach, pomegranate, persimmon, cherry or quince trees, the safest time to dig these young ones from the field for transportation to the nursery sans soil on their roots, is when they are in a state of dormancy, hence the term "bareroot."

True gardeners have learned patience. They will choose the smaller specimens, as the larger the tree the more out of balance will be the root to stem ratio. And while it may be momentarily painful, top that first year bareroot off at 2 to 3 feet in height, with no side branches remaining. Doing this means that the scaffold, which is the lower side supporting structural branches, will be lower to the ground, making harvesting and pruning less of a chore. And while we're on pruning, peaches and nectarines will need to be heavily pruned each dormant season; apples, pears, almonds, plums, persimmon and apricots, once they are established, will only require moderate pruning.

Unless the trees are in paper pots, it's wisest to ready the planting holes for your trees prior to going to the nursery, so that you can get them into the ground the same day. As with most plants and trees, they like loose soil with good drainage, and sunny locations. If your soil conditions are less than perfect, but the location you've chosen is, why not plant your new additions in a raised bed? This allows you to completely control the soil into which you are placing the trees.

Group trees that have similar spraying needs, and those varieties of fruit trees that require pollinators. Bees and the wind will assist you with this, so how lucky if your neighbors have cultivars that are needed for pollination of your trees!

Your planting holes should be wide rather than deep. A depth the length of the rootstock, or approximately 1.5 feet, should suffice. Put your hands into the earth and form a slight mound. Place your tree on the mound, gently spreading out the roots so that they aren't encircling the tree. Use the native soil, or a mixture if you need to amend, to fill

in the hole, and don't fertilize until you see growth on the tree. Once planted, mulch the area around the tree. For the first two years, dilute the fertilizer by half so that young roots do not get burned.

It will take a couple of years before your bareroot fruit tree actually bears fruit, but what a relatively short wait for the satisfaction of knowing that you were a part of the growth process nearly from the beginning. And imagine how sweet that first bite of fruit will taste!

Horticulture Therapy

When a loved one is diagnosed with dementia or Alzheimer's, you will discover that certain activities can be difficult or stressful for your family member. This doesn't mean you need to cut out activities altogether. In fact, older adults with dementia benefit greatly from participating in activities as long as they are the right ones! These activities also give you a chance to strengthen your bond even in the face of the difficulties that dementia presents.

What Is Horticulture Therapy?

Horticulture therapy is simply the concept of using gardening as a way to improve minds, bodies, and spirits. We are inherently connected to the soil. We give it care and sweat, and it gives us the foods we need to thrive. Most older adults have had some experience gardening.

Gardening can connect your loved one with past gardening memories, provide a safe and low-intensity physical workout, and promote positive feelings of accomplishment. As an added bonus, you and the whole family can enjoy the "fruits and veggies" of your labor when your crops begin to grow.

You'll need to take a strong hand in prepping the garden and guiding your loved one in order to make the garden a success. The best way to involve a loved one with dementia is to break up the gardening process into small, easy-to-accomplish tasks.

For instance, you'll need to set up the plot of land and purchase the seeds, but you can assign your loved one to dig up small holes and then tuck in the seeds or to plant the stakes in the ground. Likewise, you can weed the garden together or mix in fresh compost to keep the soil healthy for your little plants.

Special Tip: Older individuals may have trouble kneeling or bending down for long periods of time, so consider creating a raised garden or container garden for a more comfortable experience.

The Benefits of Horticulture Therapy

Gardening is an activity that allows your loved one to enjoy the beautiful outdoors but keeps them in a safe environment. If the garden is at their home, then no travel is even necessary! Gardening also encourages concentration, problem-solving, and planning skills, which can help your loved one stay in the moment.

On the physical front, gardening can improve strength, stamina, mobility, and hand-eye coordination. It can also increase energy and endurance in the process. On a psychological level, gardening can reduce stress, increase confidence, and stimulate the senses for your loved one and you as well!

Perhaps the biggest benefit of horticulture therapy is that it gives you and your loved one a fun activity to share together; something that will produce clear rewards when you harvest your tomatoes, cucumbers, strawberries, or other crops. Though you'll put physical seeds into the ground and watch them grow, you'll also be planting symbolic seeds of love and connection. You can spend your time in the garden telling stories or simply listening to music together.

Will Ants Hurt my Plants?

Not directly. But if ants are living in the soil around a plant, they can make the plant dry out and need water more frequently. This is because their ant tunnels create air pockets which dry out the soil faster. On the other hand, those same tunnels help to aerate the soil, which is a good thing. If ants are on the foliage of a plant, that's usually a sign that harmful sucking insects such as aphids or whiteflies are feeding and damaging your plant.

These sucking insects emit a residue called honeydew that is sweet and very attractive to ants. The ants will roam your plant and feed on the sweet honeydew.

Unfortunately, they will do nothing to control the damaging insect. In fact, ants sometimes will move predator insects to fresh parts of the plant to help them create fresh honeydew. At this point, they become partners in crime and should be destroyed.

Their criminal status may be determined by interviewing a sampling of suspected ants or catching them red-handed in the act of predator insect transport.

To control ants you can use ant baits containing boric acid or place a sticky barrier around the trunks of trees or bushes that are vulnerable to attack. The ants will not be able to make it past the barrier without getting stuck.

Pelargoniums by Tamara Galbraith

Pelargoniums are the princesses of the geranium family. They've certainly earned their reputation; not only is the foliage breathtaking, but the scent of many pelargoniums is absolutely dizzying...and it's not the petals doing the smelling.

The leaf color of pelargoniums can range from fancy colored, gold, silver and tri-color, while the shape can be stellar (resembling a star), angel (like a pansy), ivy-leafed, round, lobed, ruffled...well, you get the idea.

Scented-leaf pelargoniums, while usually not as pretty to look at foliage-wise, are nonetheless gorgeous to the nose. Imagine brushing against your plants and picking up the smell of pineapple, freshly ground nutmeg, rose, mint, coconut, orange, lemon, rose, ginger, allspice or apple - just to name a few. This fragrant type of pelargonium has been used since the 1700's for flavorings, sachets and many other products.

Some pellicies have a vining habit while others get shrubby. Most prefer a Mediterranean-type climate, enjoying both heat and moisture. Plants vary in height from 1-3 feet, making them perfect for containers, in most cases.

If you're not sure how to tell a pelargonium from a true geranium, inspect the flower; geraniums have five equal-sized petals, while pelargoniums have two upper and three lower distinct petals.

And, while leaves and flowers of these deliciously-scented pelargoniums are edible, try to hold off from eating them until you get them home from the nursery!

"Every gardener knows that under the cloak of winter lies a miracle ... a seed waiting to sprout, a bulb opening to the light, a bud straining to unfurl. And the anticipation nurtures our dream."
- Barbara Winkler

How to Tell if You have Poor Drainage

Grangetto's

First, your plants won't look happy. (Surprise!) The foliage will look dull and lack the luster and intense color of a healthy plant. If it is a blooming plant, it may produce few blooms or none at all. When the condition becomes severe, the plant will drop its leaves from the interior first, eventually working its way to the leaf tips.

The second sure sign is if you are not watering much but the ground stays continually wet, or even has moss or algae growing on it. The soil may also have an odor. What is important to remember is that every time plants are watered, the soil temperature is lowered by up to twenty degrees. Most plants are stimulated to grow as the soil temperature warms up. If the soil is always wet, the soil temperature will be cooler than the plant desires and it won't grow much.

Poorly draining soil also attracts bad bacteria that can attack the root system, in addition to providing less oxygen for the plant. If you think you have bad drainage, gently lift the plant out of the ground with a shovel--being careful not to damage roots.

If the soil is wet at the bottom of the hole, dig it deeper and back-fill with at least six inches of gravel. Then build a mound that will raise the plant 3-6 inches higher than the surrounding soil level and re-plant so that the top of the root ball is level with the top of the mound. If that doesn't work, you may need to find a different location for the plant.

Feeding the Birds

By late winter many natural food sources for local birds start to thin out. It's important to keep your bird feeders fully stocked until spring. Offer a variety of foods to attract the widest selection of bird species. Black oil sunflowers, for example, draw cardinals, blue jays, juncos, and a host of other species. Beef suet is ideal for woodpeckers, mockingbirds, and nuthatches. And Nyjer seed is a finch favorite. Also, include a diverse selection of feeders such as tube, hopper, and platform to accommodate the feeding habits of different bird species.

Tip: During winter you can often attract more songbirds to fresh water than you can to food. If necessary, use a heater to keep the water in your birdbath from freezing and add fresh water every few days.